From: Steven Lewis Maxson

To: Microsoft ATR

Date: 1/23/02 10:24am

Subject: Microsoft Settlement

Dear Sirs and Madams,

I very strongly believe the proposed settlement in the Microsoft antitrust case is a travesty of justice: When was the last time you heard the loser in a case (which is essentially a criminal trial) call the outcome fair? Below I will add some factual basis for my opinions.

- 1. I have an acquaintance who was an officer at IBM when the Internet Explorer web browser first was released "for free". (He is now a vice president at IBM.) When he joined management at IBM, he was given some antitrust schooling, and part of their advice was "if you ever give anything away for free, plan on spending the rest of your life in jail". At that time, IBM had only about 60% market share, or a much smaller market share than Microsoft has. The clear presumption is that when a market leader gives things away for free that directly compete with a competitor's product, thay are trying to destroy the competitor. You should be starting criminal antitrust proceedings against Microsoft management, not letting the company off of the hook.
- 2. The fact that the Internet Explorer web browser is tightly integrated into their operating system product makes all computers using Windows and Internet Explorer more vulnerable to remote exploits ("cracking"), even when the web browser is not in use. This is well known in the computer security community, and it is well known than with this degree of integration there is no way whatsoever of making such computers even appproximately or reasonably secure. By permitting "tight integration" of their web browser into their operating system, you leave the world naked to computer hackers, crackers and terrorists. These matters are not talked about in public, but every computer connected to the internet and using the Microsoft Windows operating system products with tightly integrated Internet Explorer web browser intact is naked to the world and it is not possible, even in principle, to make them secure against remote exploit. (We have been fortunate so far that no really low level exploits have been developed and/or deployed against the Windows/IE vulnerabilities, as this would probably be the death of the internet.)
- 3. INtegration of the web browser into the operating system is laargely irrelevant from the perspective of providing customer service and features which customers desire. There are well known ways of providing "fascile interoperability" which do not go as far as direct tight integration. I have indicated above that the mere presence of a web browser \*within\* the operating system raises well known inherent security risks. (You not only have the web browser as a pathway into the very heart of the machine itself, but its incorporation in the heart of the machine means you are

necessarily precluded from taking other protective measures any reasonably prudent operating system designer would include in his design. This means that there are necessarily going to be ways to take control of a Windows/IE machine which is connected to the internet without sending an email and without the user visiting a hostile site, etc.). Web browsers are notorious for the new exploits always being discovered for them, and this means the consequences of visiting a hostile website on the internet can be far more serious for a Windows/IE user. Tight integration also increases the possssible seriousness of the consequences of computer viruses, worms, trojans and other hostile agents.

- 4. The conclusion is that the tightly integrated web browser's sole function is to destroy competition, since it is not necessary for providing customers features and services which might be desireable, it incorporates many features which are hazardous to the customer's interestsand the computer using community as a whole, and since it violates good design principles and derogates security simply by its existence.
- 5. In addition to the tight integration of web browsers into the operating systems issue (which was the pre-eminent issue of the trial, as I understand it), the general lack of documentation and the widespread existence of undocumented features in the operating system products is a substantial barrier to competition raised by Microsoft, which was found to be a monopoly. Even if the Internet Web browser were to be removed from its position of tight integration into the various Windows operating systems, a competing browser (Netscape, for instance) would never be able to obtain competitive "facile interoperability" with other software on the computer if that facile interoperability depends in large part on otherwise undocumented features of the operating system. No product, however well designed and implemented, will be able to offer the samme level of ease of use and performance if there are significant undocumented features of the operating system such as ther are today.

The essence of the antitrust laws is to preserve competition, and nothing in the proposed settlement does this.

Respectfully submitted, Prof. Steve Maxson DEpartment of Physics University of Colorado at Denver